Exploring AI-mediated informal digital learning of English (AI-IDLE): a mixed-method investigation of Chinese EFL learners' AI adoption and experiences

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Abstract

Abstract Recent advancements in natural language processing and large language models have ushered language learning into the age of artificial intelligence (AI). Recognizing the affordances of generative AI tools, this paper aims to examine the degree to which L2 learners accepted and leveraged large language model platforms (e.g. ChatGPT, Bing Chat) for the informal digital learning of English (IDLE) purposes. Employing an explanatory sequential mixed-method design, this study draws on the technology acceptance model (TAM) and collects data via an adapted TAM questionnaire and an interview guide. A total of 867 Chinese EFL (English as a foreign language) learners answered the online survey, while 20 attended the post-survey interviews. Drawing on a validated structural model that elucidates the inter-factor relationships of perceived ease of use, perceived usefulness, intention to use, and actual use, the quantitative analysis provides statistical accounts for EFL learners' adoption of Generative Pre-trained Transformer (GPT) technologies. The qualitative findings, derived from the interview data, reveal three key themes: (1) how perceived usefulness of chatbots for IDLE emerges from hands-on experimentation with these tools; (2) how intention to use increases as learners negotiate chatbot affordances and constraints; and (3) how actual use of chatbots for IDLE involves using these tools as tutors or conversation partners. Connections between quantitative and qualitative findings enhance our understanding of how EFL learners negotiate the affordances and constraints of highly capable AI technologies to participate in creative IDLE practices. By understanding these practices, this study draws attention to the attitudes and practices that constitute AI literacies, ultimately offering implications for future classroom practices and research.